

Applicant : Tong Zhang et al.  
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Attorney's Docket No.: 100202720-1  
Amendment dated Feb. 14, 2008  
Reply to Office action dated Nov. 15, 2007

### **Amendments to the Drawings**

The attached Appendix contains replacement and annotated sheets of drawings that include changes to Figure 8. In particular, the label "Audio Piece 2" has been changed to --Audio Piece 1--.

Appendix: Replacement Sheet  
Annotated Sheet Showing Changes

## Remarks

### I. Status of claims

Claims 1-17 and 39-62 are pending.

Claim 3 has been allowed.

### II. Objection to the drawings

The drawings have been amended to address the Examiner's concerns. The objection to the drawings now should be withdrawn.

### III. Objection to the specification

The specification has been amended to address the Examiner's concerns. The objection to the specification now should be withdrawn.

### IV. Claim rejection under 35 U.S.C. § 112

Claim 4 has been amended to address the Examiner's concerns. The rejection of claim 4 under 35 U.S.C. § 112, second paragraph, now should be withdrawn.

### V. Claim rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1, 2, 5, 6, 9-12, 17, 40, 41, 45-48, 55, and 58-62 under 35 U.S.C. § 102(b) over Kulas (US 6,044,047).

#### A. Independent claim 1

Independent claim 1 has been amended and now recites:

1. An audio processing method, comprising:  
identifying audio summaries of respective audio pieces,  
wherein each of the audio summaries comprises digital content  
summarizing at least a portion of the respective audio piece, and  
the identifying comprises for each of the audio pieces

selecting constituent segments of the audio piece as  
its respective ones of the audio summaries  
and  
ranking its audio summaries into different levels of  
a respective audio summary hierarchy;  
determining transition audio segments each comprising a  
form of audio content that is different from the audio summaries  
and distinguishes the transition audio segment from the audio  
summaries;  
concatenating the transition audio segments and ones of the  
audio summaries ranked at a selected level of the audio summary  
hierarchies into a sequence in which at least one of the transition  
audio segments is between successive ones of the audio  
summaries; and  
rendering the sequence.

The rejection of claim 1 under 35 U.S.C. § 102(b) over Kulas should be withdrawn because Kulas neither expressly nor inherently discloses that identifying audio summaries “comprises for each of the audio pieces selecting constituent segments of the audio piece as its respective ones of the audio summaries and ranking its audio summaries into different levels of a respective audio summary hierarchy, nor does Kulas expressly or inherently disclose concatenating the transition audio segments and ones of the audio summaries ranked at a selected level of the audio summary hierarchies into a sequence.

In pertinent part Kulas discloses a multi-CD player 100 that includes a controller 118 that stores in RAM a four-second sample of the beginning of each CD that is loaded in the player 100 and a tone generator 154 that outputs a tone “to indicate the end of a sample during sample playback mode and to indicate the start of a next sample” (col. 5, lines 53-56). Kulas does not disclose selecting multiple audio summaries for each of the audio pieces; instead, Kulas only discloses selecting a single four-second sample as the summary of all of audio pieces on a respective CD. Kulas does not disclose ranking multiple audio summaries of an audio piece into different levels of a respective audio summary hierarchy; instead, Kulas only discloses selecting a single four-second sample as the summary of all of audio pieces on a respective CD. Kulas does not disclose concatenating the transition audio segments and ones of the audio summaries ranked at a selected level of the audio summary hierarchies into a sequence; instead, Kulas only

discloses rendering a single four-second sample of the beginning of each CD in order of CD slot number (see, e.g., col. 5, lines 21-49; FIG. 3).

For the reasons explained above, the rejection of claim 1 under 35 U.S.C. § 102(b) over Kulas now should be withdrawn.

B. Dependent claims 2, 5, 6, 9-12, 40, 41, 45-48, 61, and 62

Each of claims 2, 5, 6, 9-12, 40, 41, 45-48, 61, and 62 incorporates the elements of independent claim 1 and therefore is patentable over Kulas for at least the same reasons explained above.

C. Independent claim 17

Independent system claim 17 recites elements that essentially track the pertinent features of independent claim 1 discussed above. Therefore, claim 17 is patentable over Kulas for at least the same reasons explained above in connection with independent claim 1.

D. Claims 55 and 58-60

Each of claims 55 and 58-60 incorporates the elements of independent claim 17 and therefore is patentable over Kulas for at least the same reasons explained above.

IV. Claim rejections under 35 U.S.C. § 103

A. Claims 1, 7, 8, 13-15, 17, 39, 42, 43, 44, 50-54, 56, and 57

The Examiner has rejected claims 1, 7, 8, 13-15, 17, 39, 42, 43, 44, 50-54, 56, and 57 under 35 U.S.C. § 103(a) over Kulas in view of Csicsatka (US 2006/0235550).

1. Independent claim 1

Csicsatka does not make-up for the failure of Kulas to disclose and suggest the elements of independent claim 1 discussed above.

Indeed, Csicsatka neither expressly nor inherently discloses that identifying audio summaries “comprises for each of the audio pieces selecting constituent segments of the audio

piece as its respective ones of the audio summaries and ranking its audio summaries into different levels of a respective audio summary hierarchy. Instead, Csicsatka simply discloses that the system will add songs to a playlist in response to a user's pressing of a Favorites Key while audio clips of songs of an album are being played in album order (see Example 1 on page 1 of the provisional application). Csicsatka does not even hint that more than one audio clip could be used to summarize a respective song.

Csicsatka also does not expressly or inherently disclose concatenating the transition audio segments and ones of the audio summaries ranked at a selected level of the audio summary hierarchies into a sequence. To the contrary, in accordance with Csicsatka's teachings the audio clips of each music item is rendered without any type of transition between the audio clips.

For at least these reasons, the rejection of independent claim 1 under 35 U.S.C. § 103(a) over Kulas in view of Csicsatka now should be withdrawn.

2. Claims 7, 8, 39, 42, 43, and 44

Each of claims 7, 8, 39, 42, 43, and 44 incorporates the elements of independent claim 1 and therefore is patentable over Kulas in view of Csicsatka for at least the same reasons explained above.

3. Independent claim 13

Independent claim 13 has been amended and now recites:

13. An audio processing method, comprising:
  - sequentially rendering audio summaries and transition audio segments with at least one transition audio segment rendered between each pair of sequential audio summaries, wherein each of the audio summaries comprises digital content summarizing at least a portion of a respective associated audio piece;
  - receiving a user request to browse the audio summaries;
  - ordering ones of the audio summaries into a sequence in order of audio feature vector closeness to a given one of the audio summaries being rendered when the user request was received; and
  - rendering the sequence.

The rejection of independent claim 13 under 35 U.S.C. § 103(a) over Kulas in view of Csicsatka now should be withdrawn because the cited references, taken alone or in any permissible combination, do not disclose or suggest each and every one of the elements of the claim.

In particular, neither Kulas nor Csicsatka discloses or suggests “ordering ones of the audio summaries into a sequence in order of audio feature vector closeness to a given one of the audio summaries being rendered when the user request was received.” Indeed, Kulas does not disclose or suggest anything whatsoever about such an ordering element; instead, Kulas merely discloses rendering a single four-second sample of the beginning of each CD in order of CD slot number (see, e.g., col. 5, lines 21-49; FIG. 3). Csicsatka also does not disclose or suggest anything whatsoever about such an ordering element; instead, Csicsatka merely discloses that audio clips are played in album order.<sup>1</sup>

For at least these reasons, the rejection of independent claim 13 under 35 U.S.C. § 103(a) over Kulas in view of Csicsatka now should be withdrawn.

#### 4. Claim 14

Claim 14 incorporates the elements of independent claim 13 and therefore is patentable over Kulas in view of Csicsatka for at least the same reasons explained above.

#### 5. Independent claim 15

Independent claim 15 recites:

15. An audio processing method, comprising:  
sequentially rendering audio summaries and transition  
audio segments with at least one transition audio segment rendered  
between each pair of sequential audio summaries, wherein each  
audio summary comprises digital content summarizing at least a  
portion of a respective associated audio piece, wherein each audio

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<sup>1</sup> Although Csicsatka discloses an example in which “The user selects an Artist, Genre or Year, [and] Audio Clips from that group start to play, Csicsatka does not provide any details about the way in which those Audio Clips are played. Csicsatka certainly does not hint that audio summaries are ordered into a sequence in order of audio feature vector closeness to a given one of the audio summaries being rendered when the user request was received.

piece is associated with multiple audio summaries and a single audio summary is rendered automatically for each audio piece; and

rendering an audio summary for a given audio piece in response to user input received during rendering of a preceding audio summary associated with the given audio piece.

The rejection of independent claim 15 under 35 U.S.C. § 103(a) over Kulas in view of Csicsatka now should be withdrawn because the cited references, taken alone or in any permissible combination, do not disclose or suggest each and every one of the elements of the claim. In particular, neither Kulas nor Csicsatka discloses or suggests that “each audio piece is associated with multiple audio summaries,” as recited in claim 15. To the contrary, Kulas expressly discloses that a single four-second sample is selected as the summary of all of audio pieces on a respective CD (see, e.g., col. 3, lines 9-25), and Csicsatka discloses that each song is represented by a respective audio clip that has a start time and a duration (see, e.g., Example 1 on page 1 and the description under the “Audio Clips” bullet item on page 2).

In support of the rejection of claim 15, the Examiner has stated that Csicsatka discloses “wherein each audio piece (“Album”) is associated with multiple audio summaries (Audio Clips for each song on the album)” (see page 14, last ¶ of the Office action). That is, the Examiner’s position is premised on the assertion that the “album” disclosed in Csicsatka constitutes an “audio piece” as recited in claim 15.

The Examiner’s interpretation of “audio piece”, however, is unreasonable because it is contrary to the plain meaning of the term. The term “audio piece” plainly means a piece of audio content such as music, speech, audio portions of a movie or video, or other sounds (see page 4, lines 16-18 of the specification). People familiar with the English language would not consider the collection of all the various songs on an album of the type described in Csicsatka as “an audio piece.” Instead, such people would consider each of the individual songs of an album as an audio piece. Indeed, this is the interpretation of “audio piece” that the Examiner has relied on throughout the Office action (see, e.g., page 9, last ¶, line 3, of the Office action, where the Examiner has taken the position that each song of an album constitutes a respective “audio piece” as recited in the claims).

Moreover, the Examiner's interpretation of "audio piece" as an album of songs is inconsistent with the Examiner's own position with respect to Csicsatka's disclosure. In particular, in the rejection of claim 15, the Examiner has taken the position that Csicsatka discloses that "a single audio summary is rendered automatically for each audio piece" (see page 14, last ¶, lines 7-8 of the Office action). At the same time, the Examiner has acknowledged that Csicsatka discloses that, in response to user selection of an album, the "Audio Clips from the songs from the album start to play in album order" (see page 14, last line through page 15, line 1 of the Office action). If the album disclosed in Csicsatka constitutes an "audio piece" (in accordance with the Examiner's unreasonable construction of the term), then the automatic rendering of "Audio Clips from the songs from the album" certainly does not constitute a disclosure that "a single audio summary is rendered automatically for each audio piece."

For at least these reasons, the rejection of independent claim 15 under 35 U.S.C. § 103(a) over Kulas in view of Csicsatka should be withdrawn.

6. Independent claim 17

Independent claim 17 recites elements that essentially track pertinent elements of independent claim 1 discussed above in connection with independent claim 1. Therefore, independent claim 17 is patentable over Kulas in view of Csicsatka for reasons analogous to those explained above in connection with independent claim 1.

7. Claims 50, 51, 56, and 57

Each of claims 50, 51, 56, and 57 incorporates the elements of independent claim 17 and therefore is patentable over Kulas in view of Csicsatka for at least the same reasons explained above.

8. Independent claim 52

Independent system claim 52 recites elements that essentially track the pertinent features of independent claim 13 discussed above. Therefore, claim 52 is patentable over Kulas for at least the same reasons explained above in connection with independent claim 13.



9. Independent claim 54

Independent system claim 54 recites elements that essentially track the pertinent elements of independent claim 15 discussed above. Therefore, claim 54 is patentable over Kulas for at least the same reasons explained above in connection with independent claim 15.

B. Claim 16

The Examiner has rejected claim 16 under 35 U.S.C. § 103(a) over Kulas in view of Takenaka (US 6,807,450).

Claim 16 incorporates elements of independent claim 1. Takenaka does not make-up for the failure of Kulas to disclose or suggest the elements of independent claim 1 discussed above.

Therefore, claim 16 is patentable over Kulas in view of Takenaka for at least the same reasons explained above in connection with independent claim 1.

C. Claim 49

The Examiner has rejected claim 49 under 35 U.S.C. § 103(a) over Kulas in view of Setogawa (US 6,424,793).

Claim 49 incorporates elements of independent claim 1. Setogawa does not make-up for the failure of Kulas to disclose or suggest the elements of independent claim 1 discussed above.

Therefore, claim 49 is patentable over Kulas in view of Setogawa for at least the same reasons explained above in connection with independent claim 1.

V. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

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